

AMERICAN BEE JOURNAL

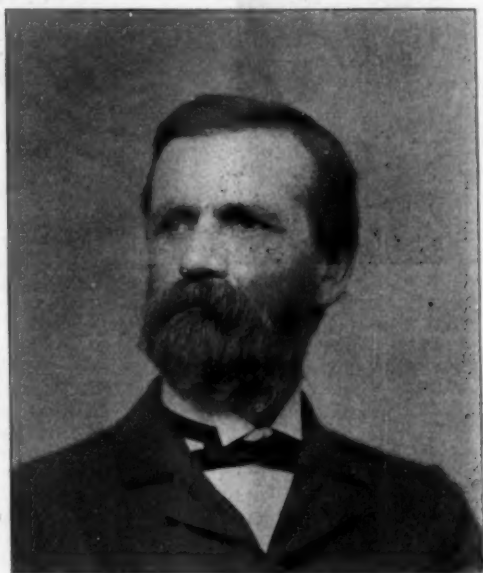


GEORGE W. YORK,
Editor.

CHICAGO, ILL., AUGUST 30, 1900.

FORTIETH YEAR.
No. 35.

WEEKLY



HON. EUGENE SECOR,
*Gen'l Manager and Treasurer of the Nat'l Bee-Keepers' Association,
Forest City, Iowa.*

THE AMERICAN BEE JOURNAL

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Reformed Spelling.—The American Bee Journal adopts the Orthography of the following Rule, recommended by the joint action of the American Philological Association and the Philological Society of England:—Change "d" or "ed" final to "t" when so pronounced, except when the "e" affects a preceding sound. Also some other changes are used.

The Weekly Budget

HON. EUGENE SECOR, whose portrait graces our first page this week, needs no formal introduction to American bee-keepers. We may say, however, for the benefit of the newer readers, that he was born in New York State, May 13, 1841, being one of 11 children—a good old-fashioned family. At the age of 21 he went to Iowa, and in 1864 entered Cornell College. In 1866 he married Millie M. Spencer—a native of Ohio, of course! They have four children living—six having "gone on before."

Mr. Secor has held many prominent and responsible positions, to enumerate which would take too long and occupy too much space, tho it may be briefly noted that he is a Methodist, a banker, farmer, horticulturist, apiarist, stock-breeder, president and ex-president of nearly everything, and the "poet laureate" of apiculture—a sample of the latter being found on another page of this issue.

MR. J. H. SIPLE, of Bolivar Co., Miss., is spending a few weeks in Chicago. He is attending the National convention, after which he expects to return to look after his over 250 colonies of bees "way down in Mississippi."

MR. JOHN R. SCHMIDT, of Hamilton Co., Ohio, writing us Aug. 20th, said:

"The season has been quite poor. One apiary of 35 colonies yielded about 200 pounds of surplus honey. Others

have done worse, and some a little better. I have doubled my number of colonies, and averaged 48 pounds of A No. 1 comb honey per colony, which is about half the amount I have been working for ever since last fall. Only those who gave their bees the necessary care can boast of a crop. The others say there was no honey this year. Certainly, not for them."

STENOGRAPHY gives this stanza as his first "pickup," in last Gleanings in Bee-Culture:

"From brazen skies the sun pours down
A flood of torrid heat;
All Nature pants beneath the scourge,
The bees get little sweet."

A Dutchman friend thinks this expresses it also:

"Dot sun bin awful warm, I dinks,
He makes dot hot coom ood;
Und all dose flow'rs dry oop, py chinks—
Pees not could vork deir mound."

MR. FRANK B. WHITE, of the agricultural advertising firm of Frank B. White Co., of Chicago, is one of the whitest men we know. Tho not a bee-keeper, he is greatly interested in the success of bee-keepers, and, in fact, in the success of all agricultural people.



Without any invitation, or suggestion, he volunteered financial assistance, and was among the most generous contributors to the expenses of the National convention of bee-keepers now being held in Chicago. We believe his tribe is increasing, as it very properly deserves to do.

BEE-KEEPING IN HUNGARY.—The British Bee Journal says that in 1897 there were 641,127 colonies of bees in Hungary, of which 197,382 occupied hives with movable frames, and 443,745 were in straw hives. The honey was estimated at 6,800,000 pounds, and wax 3,000,000 pounds.

DR. E. GALLUP, of Orange Co., Calif., wrote us Aug. 6, as follows:

"As I went up town last week I past a century plant in full bloom, about 20 feet high, and literally alive with bees and humming-birds. Why don't bee-keepers advocate its planting for honey, as it is sure to bloom once in a hundred years? (!)"

"This county has produced about 48 or 50 tons of honey this year, and San Diego county 400 tons; and it is about all marketed at from 5 to 6 1/4 cents—nearly all for the German market."

DR. MILLER'S HONEY QUEENS!

One Untested Queen Free as a Premium for sending ONE New Subscriber to the American Bee Journal for one year.

Or, send us \$1.50 and we will mail you a Queen and also credit your own subscription for One Year.

We have been fortunate in making an arrangement with DR. C. C. MILLER—the well-known honey-specialist—to rear queens EXCLUSIVELY FOR US DURING THE

SEASON OF 1900. These Queens will be mailed in rotation, so "first come first served."

The Queens Dr. Miller will send out on our orders will be precisely the same as those he rears for his own use, so of course they will be from his best stock. His best colony in 1899 had a queen reared in 1898; May 5, 1899, it had brood in 4 frames, and he gave it at that time a frame of brood without bees. It had no other help, but May 25 a frame of brood with adhering bees was taken from it, and the same thing was repeated June 3, leaving it at that time 5 frames of brood. It stored 178 sections of honey, weighing 159 pounds (and that after July 20, in a poor season), being 2 1/2 times the average yield of all his colonies. A point of importance is the fact this colony did not swarm, and an inspection every week or 10 days showed that at no time during the entire season was there even so much as an egg in a queen-cell. Dr. Miller rears queens from this one.

The demand nowadays is for BEES THAT GET THE HONEY when there is any to get, and Dr. Miller has such bees. You will want to have a queen from his best, we are sure, even if she is not pure Italian.

Do not send any orders to Dr. Miller, as all orders MUST come thru us, according to our agreement.

Remember, send us \$1.00 for ONE NEW SUBSCRIBER to the American Bee Journal for one year, and YOU will get ONE OF DR. MILLER'S UNTESTED HONEY-QUEENS FREE AS A PREMIUM. This offer is made only to our present regular subscribers. Orders for queens are to be filled in rotation.

Address all orders to **GEORGE W. YORK & CO.,**
118 Michigan Street, CHICAGO, ILL.

ESTABLISHED IN
1861

AMERICAN

THE OLDEST BEE-PAPER
IN AMERICA

BEE JOURNAL

40th YEAR.

CHICAGO, ILL., AUGUST 30, 1900.

No. 35.

* Editorial Comments. *

It's Just the Same "old reliable" American Bee Journal—only it has a brand new bonnet, and very properly "a bee in it."

The Chicago Convention of the National Bee-Keepers' Association will have closed by the time the majority of our readers receive this number of the American Bee Journal. We hope that, as anticipated, it was the largest and best bee-keepers' convention ever held on this continent. Surely, the program promised a rich treat for all who could attend. We expect very soon to begin the publication of the convention proceedings in these columns.

A Mission of Bee-Editors.—One of the editors of the British Bee Journal has this to say on the mission of the bee-editors:

"There can be no reasonable objection to individual bee-keepers making hives for their own use to whatever style, size, or shape they may prefer; but it forms part of our mission as editors to guide readers into the methods of management proved by experience to be best. . . . While allowing perfect freedom for all so far as regards personal preferences, we strongly deprecate any general interference with the size or measurement of the standard frame."

Nothing wrong with that view, as we can see.

To Find a Queen, one of the plans is to put the combs in pairs, having the pairs a little distance apart, using an additional hive for the needed room. After a time the bees without the queen will show signs of uneasiness, and the operator may look for the queen in the brace of combs where the bees are quiet. W. W. Case gave the plan in *Gleanings in Bee-Culture*, and Editor Root did not find it a success. The probability is that he did not wait long enough for the bees to have time to discover their queenlessness; and still greater is the probability that he did not heed one little item in Mr. Case's instructions, which was to open the hive rather roughly. If a queen is removed from a hive very quietly, a colony may not discover its loss for some hours, while the loss may be discovered in a less number of minutes if the bees be forcibly thrown from the combs, or be otherwise roughly handled.

New Kinks from the Inexperienced and Others.—It should not be supposed that only those with large experience and with large numbers of colonies of bees can write acceptable matter for a bee-paper. Sometimes an item is given by a novice that is of value to many others, possibly new to some of the veterans, and yet no one of the veterans familiar with it would think of giving it in print, because of the supposition that all were already familiar with it.

Often some little kink in bee-keeping may not be common property, and the experienced bee-keeper is always appreciative of such things, for it is the little things that often count the most.

Several illustrations of what has just been said have appeared lately. Editor Root told how he got the better of some cross bees by taking a piece of lath, or something of that kind, and whirling it rapidly in front of his face, so that every time one of the invaders approached him there was a dead bee. Dr. Miller said he had used the same plan for many years, but did not know enough to tell about it. No doubt many others had thought of and practiced a thing so simple, but like Dr. Miller had not known enough to tell of it. In the July Bee-Keepers' Review the following item occurs:

"BRACE-COMBS IN SUPERS are sometimes attached to the separators, and when the sections are taken out a piece of comb is pulled out. To avoid this trouble, set the super up on end, look thru the spaces, and if any brace-combs are seen, cut thru them with a sharp, thin knife, giving the knife a sawing motion."

To this Editor Hutchinson adds the comment:

"This is another of those things that I supposed everybody knew, but Mr. J. T. Hairston writes as tho it was quite a discovery to him, and, if so, it may be to some others."

So do not hesitate to give freely little items of experience you have gained. They may be of as much value to others as to you. If not generally known, such items will always be welcomed in these columns. If so well known that you do not find what you have sent appearing in print, do not be discouraged; the next item you send may be just the thing that is wanted.

Should Extracted Honey be Left Open in tanks or cans for the sake of improving its body by evaporation? was a question discussed in the Canadian convention, as reported in the Canadian Bee Journal. Mr. McKnight, with whom the others seemed to agree, expressed himself somewhat strongly against it, on the ground that such exposure would allow the aroma to escape. He said:

"It altogether depends upon the character of the vessel in which it is put, and the conditions of the atmosphere, whether it improves or deteriorates. There is one thing certain, that if you put honey into an open vessel and keep it there for a certain length of time, it will lose its aroma whether it improves in body or fails. The essential oil which gives the honey the aroma is a volatile oil, and will pass off if it gets a chance, and it will get a chance in an open vessel; therefore, it will deteriorate so far as losing its aroma is concerned. As to its body, that depends much upon the temperature, the condition of the atmosphere, and the season of the year."

Dampening Sections for Folding.—When one-piece sections have been allowed to become dry they can not be folded without much breaking, and must be moistened in some way at the joints, where the wood is to bend. In *Gleanings in Bee-Culture* mention was made of taking 30 or more at a time, and Dr. Miller said it was too slow work.

to take so small a number. The editor replied that he thought nothing would be gained by putting 100 or 200 in a row. To this Dr. Miller replied:

"Bless your heart, I don't put any in a row at all. I just take a package as it comes from the factory, and, without taking out a section, wet the whole business at one fell swoop. I've told how, but I'll tell again. Take off one side of the package so as to expose the grooves, and see that the ends of the sections are chucked down solid together so that a drop of water let fall on a groove can run right down thru the whole. Understand, as the package lies before you, the edges, not the sides, of the sections are uppermost. Put a plug in a funnel that closes the opening entirely, except a groove at one side to let thru a very small stream. Let the plug project downward, and be whittled down to a point. Take a tea-kettle of water *boiling hot*, pour it into the funnel and direct the stream along the line of grooves, moving just fast enough so that the hot water will run clear thru."

Editor Root very properly suggests that this will work only with square sections, unless care be taken to place all the sections the same way in a box, so that each set of grooves will register with those below.

The Somerford Nucleus Plan Modified.—In Gleanings in Bee-Culture W. A. H. Gilstrap speaks very highly of the plan of forming nuclei given by W. W. Somerford, which consists of making queenless several colonies, then in about nine days dividing the colonies into nuclei, each nucleus being supplied with queen-cells, and the nucleus being fastened in by means of leaves stuffed into the entrance, which leaves the bees will themselves remove. Mr. Gilstrap says:

"This splendid plan of increase is all right if you have a sufficient number of *best* queens. I am never so fortunate. It has been desirable for me to modify the plan in order to make rapid increase and properly improve stock. But it takes more time than to follow Mr. Somerford's method entirely.

"The modification which suits me best is, first, to get queen-cells by the Alley, Doolittle, Hyde, or other good plans from your *best* queen. Destroy as many of your *worst* queens as is necessary. When the brood is sealed, destroy all queen-cells of this inferior stock, and the following day form nuclei, using the cells from your choice stock, confining as Mr. Somerford directs. My best success has been where I stopt the hive-entrance with strips of old grain-sacks, but it is always convenient for me to liberate the bees if they fail to do so."

Bee-Keeping for Boys has not had the same attention as bee-keeping for women. Women nowadays are getting more and more able to hoe their own row, why not give the boys a chance? Here are some wise words spoken by J. J. Gunn, of Manitoba, in the Northwest Farmer:

"I would also suggest that when casting about for answers to the perplexing questions how to keep the boy on the farm, it might be a good idea to try what giving him a start as a bee-keeper in a small way would do. Very few boys, it seems to me, would fail to make a gratifying response to such a move. The management of an apiary for a number of years would not only be a business training, but would, I believe, foster and develop in most boys an appreciative love of nature and power of observation that would help them to a just discrimination between the perennial attractiveness of 'Nature, the dear old nurse,' and the tawdry varnish of city artificialities, which, unfortunately, possess such a fascination for young minds to which no healthful impetus and direction have been given."

To Avoid Propolis Between Sections and Sheet, a writer in the British Bee Journal says he succeeds by putting on the sheet wet. This allows it to be prest down snug on the sections, and it will remain close to the wood when dry, so that the bees will not be tempted to fill up the space with propolis. This may be worth trying for those who use sheets over their sections.

The Marriage of the Flowers.

BY HON. EUGENE SECOR.

In the meadow grasses tall
Bloomed a maiden Buttercup,
Golden as the yellow ball
With a Jersey cow yields up.

Sweet and beautiful she grew,
Fair enough for any king,
But no flower-lover knew
How this maid was blossoming;

For the meadow grass was high,
And she'd never learned to roam—
Was content if sun and sky
Kist her in her meadow home.

But the time had come to wed,
And new longings filled her heart;
Quiet happiness had fled,
Only *love* could heal the smart.

She had drunk the thought of God—
Longed for immortality;
Shrank from sinking 'neath the sod,
Barren, like a fruitless tree.

"Who will bring my Love to me?
Who will make my passion known?
Who will come and set me free
Ere I die, unblest, alone?"

"Over yonder hedge one hears
Mirth and music 'mong the flowers;
No one heeds the sighs and tears
Which my love has caused for hours.

"Who will make my passion known?
Who will take me to my Love?
When shall I embrace my own,
Witnest by the blue above?"

Thus she cried and mourned her fate,
Just as any maid might do
When her days are growing late,
And she has no lover true.

Sweetness, tho, is never lost!
Never blossomed flower in vain!
All the wisdom which these cost
Argues lasting good and gain.

In the universe of God
Nought is wasted which is made;
Monarchs rule and daisies nod,
Working out the plan he laid.

Bird, and beast, and grass, and tree,
Each contributes unto each;
Scented rose and social bee
Both the art of service teach.

So the lonely maiden wept
Nect'rous drops of amber dew,
Wondering why her lover slept
Since the wind her passion knew.

Priestess Bee her secret guest—
Stopt to kiss her tears away—
Promptly volunteered the quest
For a mate that very day.

Swift of wing, and tireless, too,
Quickly she from flower to flower
Told the story as she flew,
And returned within an hour

Bearing golden pledges back
From the tallest flower of all;
Sealed the union with a smack—
But remarkt, "*The fee was small.*"

Contributed Articles.

A Review of Bee-Books—"Langstroth Revised."

BY PROF. A. J. COOK.

IT is my purpose in a series of articles for the American Bee Journal to comment upon some of our bee-books, three of which I have carefully read during the past few months. I write in the spirit of most friendly criticism. I am proud of all the works. I well may be proud of them, for each one is not only a credit to the author and the art of bee-keeping, but also to the great world of book-making. Each is genuine and honest; and each shows the results of hard, persistent effort to benefit the people for whom the work was written. When any man writes a book with true, unselfish, disinterested purpose, aiming to benefit, refine and exalt those for whom he writes, well may we call such a man a philanthropist. He is adding another sheaf to the great garner of true, honest work, and, therefore, blesses the world.

The above thoughts were called forth by each of the three books which it has been my pleasure and my great profit to read in these last weeks, and which I now propose to review for the readers of our excellent American Bee Journal. The three books in the order in which they were read, and in which I shall review them are, "Dadant's Langstroth," Root's "A B C of Bee-Culture," and Cowan's "The Honey-Bee."

"LANGSTROTH ON THE HONEY-BEE."

It is with peculiar pleasure that I studied this masterpiece of bee-literature. It brought so vividly to mind the delights which came to me over a third of a century ago when I read that classic, not only in the presentation of the art side, but also in the revelation of the processes of scientific discovery—"Langstroth on the Honey-Bee."

Langstroth combined in himself that happiest trio of possessions—genius, rich culture, and, best of all, a pure,



Rev. L. L. Langstroth.

refined heart. Combine with these a masterful gift of language, and surely we have a rare specimen of manhood. All that was our dear friend Langstroth. Mr. Dadant has wisely left untouched those parts of the original work where new discoveries in art and science did not require a new cast. It has always been a wonder to me, as I have gone

over the eloquent paragraphs of Langstroth's great classic, how it was possible for any man to divine so many of the hidden facts of both science and practice, as did our genial, kindly old friend whose memory is so dear to every American bee-keeper. This shows that he was a genius. A graduate of Yale College, he possessed the rare culture which is every genius' helpmeet. As a man, absolutely honest, and one who thought no evil, he was so guileless that others of very different mold were quick to take advantage of his very loveliness. The conduct of some others toward Mr. Langstroth furnishes the darkest page in all the great volume of American apiculture. I believe such treatment today would be impossible. God be praised that the world is moving so rapidly towards higher ideals and better lives.

Mr. Dadant, as one of the ablest bee-keepers of the United States, and one conversant with the bee-literature of the world, was, without doubt, just the person to undertake this important work. I doubt if he has a rival in his ability in the direction of extracted honey and the production and use of comb foundation. Thus, as we should expect, wherever he has touched the pages to bring the work into line with the best modern practice and knowledge, we are not pained by any serious contrast, as we might well expect to be.

It is to be regretted that he gives Cheshire credit for illustrations which the latter took without credit from such authors as Schiemenz, Wolff, etc. But, of course, he can not be blamed for this. He also gives Cheshire credit for ideas which the latter also plagiarized. A copyist is always likely to run into error, especially a copyist who gives no credit. It is always dangerous to follow such an one. Mr. Dadant could not know regarding this, and so is not blamable for the blemishes. It seems questionable to criticize so excellent a book, but the mistakes as I have seen them are so few that I am bold to do so.

In a note on page 14, taken from the great Claude Bernard, I think there is plainly an error. "If you deprive a bird, a pigeon, for instance, of its cerebral lobe it will be deprived of its instinct, yet it will live if you stuff it with food. Furthermore, its brain will eventually be renewed, thus bringing back all the uses of its senses." As I understand, instinctive actions are such as take place independent of the cerebrum. Walking after one is started is almost wholly instinctive. We do it without thought. The cerebrum plays no part. The piano-player acquires ability so that after commencing to play a piece the fingers run on and the person may talk or sing something else. I have heard instinct called "frozen habit." We cut a frog's head off, throw the body into the water, and it swims almost as well as before the decapitation. These are purely reflex acts, and I think are akin to what we call instinct. The cerebrum, of course, takes no part. I supposed that the nerve-cells that were the center of instinctive actions were largely, if not wholly, outside of the cerebrum; the latter is the great center of intelligent action. Again, I did not suppose that brain tissue once lost was restored. I had thought that a fatty substance replaced it. We know that the function comes back, and so are led to believe that a part of the brain, upon occasion, may do the work previously done by quite another part. I am surprised that Bernard wrote the above paragraph. I do not believe he would have done so in the latter part of his life.

On page 15 the glands that appear like a string of onions are referred to as the upper head-glands. I remember them as lower than the other glands, and would call them the lower head-glands.

On page 16 Cheshire and others are quoted as showing that the secretions of these glands is the food of the larva, queen, etc. We now know positively that this is not true. The food of the larva, etc., is digested and regurgitated by the nurse-bees, and the secretion is a digestive fluid. Even Schiemenz (from whom so much of Cheshire is taken) made this mistake. By mixing finely ground charcoal with honey I have found that it appears in the brood-cells. This demonstrates that the nurse-bees digest the larval food.

On page 17 we read that the food eaten by the queen is digested and assimilated by the bees for her use. Of course, this is a wrong use of the word assimilated. To assimilate is to convert into tissue. It may be defined in some of the dictionaries as a synonym with digestion; but it is not so used in our physiologies. It is rather synonymous with constructive metabolism or anabolism.

On the same page (17), in speaking of the racemose glands, the other glands of the head and those of the thorax, it is stated that the saliva produced from them helps the digestion, changes chemical conditions of nectar, helps to knead the scales of wax, and perhaps the propolis. The

author adds that it is also used to dilute the honey and moisten the pollen-grains. I believe too much is claimed for this secretion. It certainly aids in digestion, for it without doubt digests the nectar. I would hardly claim more for it, at least with any great positiveness.

Los Angeles, Calif.

(Concluded next week.)



The France Quadruple Hive System.

REFERRING to page 466, how does Mr. France fix the entrance thru the chaff packing?

2. Why does he have upper and lower entrances?
3. Why use auger-holes instead of ordinary entrances?
4. How are the hive-bodies set on the bottoms? Facing which way?
5. Does he use the ordinary hive-bottom—Danzy?
6. Are the two or three auger-holes sufficient to admit a rush of bees in the honey harvest?
7. Does he remove the middle band for winter?

Cook Co., Ill.

HERMAN F. MOORE.

[Mr. France kindly replies to the above as follows:—
EDITOR.]

1. A 2-inch space packt with chaff on all sides of the hive. The entrance is thru 2x4 inch blocks, with entrance cut thru the block. Lower entrance, $\frac{3}{4}$ -inch notch in the block on the bottom-board.

2. If only lower entrance, it may get clogged in winter; also is not entrance enough during the harvest season, hence the upper entrance—2-inch auger-hole, with button nearly to close the same in winter.

3. Auger-holes are easily made, and are mouse-proof in winter.

4. The hive-bottom is nailed on the hive when the hive is made. One entrance on each side—north, south, east and west. A 20-year record of each colony finds no preference in direction of entrance. I have seen similar hive-entrances to the east and west with good results.

5. Standard Langstroth frame.

6. Yes; during the honey-flow the upper entrance is open, but nearly closed at other times.

7. The hive-band is removed only when the hives are three stories high, during the honey harvest.

Grant Co., Wis.

N. E. FRANCE.



Comb Honey—Harvesting, Storing and Crating.

BY F. A. SNELL.

IN harvesting or taking comb honey from our bees it is important that we do it at the right time, especially if intended for market, which is the case with the more extensive bee-keeper. In securing comb honey I practice the tiering-up system, and have done so for over 30 years. I can get more honey by this system than any other I have ever tried, and they have been many. One super of boxes is first given each strong colony run for comb honey, and as more room is required the first cases are raised up and a new one placed beneath, and at times during good seasons the third case is added and placed next to the brood-chamber.

I go thru my apiary twice each week during a good flow, and note the progress being made in the supers, as I can quickly do, as every super has an observation glass thru which I can at a glance see what is being done. All completed supers are removed from the hives at each time, freed of bees, and taken to the honey-room adjoining the bee-yard. At this time, if more room is needed it is given each colony requiring it.

To have the honey in the best shape to sell, it should be removed from the hives as soon as all is capt over. The beautiful cappings are then white and very inviting. If allowed to remain long after being capt in the hives the cappings become darkened by the bees, and the appearance is injured.

As the summer harvest, which here is secured from white and alsike clover, and basswood, nears its close, less surplus room should be given, for by the contraction of space in the supers more combs will be completed than in the larger space, and I desire to get all the finisht comb honey possible. At the close of surplus gathering from the above sources, all the supers should be removed from the hives, cleared of bees, and stored in the honey-house.

For the correct storing of surplus honey a warm, dry, and airy room is essential. There should be windows at least on two sides of the room to admit light and a good circulation. The windows should be opposite, and I think preferably at the east and west sides of the room. The building should not be shaded, and should be painted a dark red or some dark color, so as to draw heat. The hot, dry air of summer will in motion do much to still better ripen the honey. Screens of fine wire should be tacked on the outside of the window-casing at the bottom and sides, and a $\frac{3}{8}$ -inch space left at the top by full width of the window, and extend about one foot above the window. This will allow any bees that may be carried in with the honey to escape at the top, and will also exclude all bees, flies, and millers.

The building should be one foot or more above ground, so no dampness may be caused from beneath. The windows should be left open on all pleasant days in summer. Of course, the honey-room should be mouse-proof. A strong rack should be made on which to place the honey, and preferably at one side or end of the room, as it will so least interfere with working room. The rack should be one foot above the floor, so the air may freely pass under it. A row of cases should first be put on, and on top of these at the front and back strips one inch square should be placed; and this should be continued in the same way until the space is filled to the ceiling of the room, if necessary.

All of the finest honey should be stored in a body, and that not so fine by itself. At the time the honey is taken in I place it to one side, and the next morning clean off the propolis from the supers and boxes, so far as we can, and tier it up on the rack in the proper place.

By storing the honey as above stated, the hot air circulates freely all thru between the cases and boxes, just as it should do to ripen the honey more fully. The honey is thus left until time for crating to market, which is of necessity after the close of the summer harvest. Some is crated to supply my home demand, but the larger part is left until September.

The supers taken off at the close of the summer harvest not completed are tiered separately.

To handle and crate comb honey properly requires much care. The delicate combs are very easily cut or bruised, and a little carelessness will result in broken combs and dripping honey. In crating comb honey I have a case at my right hand on a bench; at my left I place a honey-case. A section-box is raised from the super, taken in the left hand, and with the right hand I use the hive-opener with which I scrape off the propolis from the box and place it at one corner of the case, next the glass. The second section is removed from the super, and placed next to the first one in the case, and so I proceed until the case is filled. The other supers of the same grade are thus emptied. If any combs are cut, or in any way broken, such should not be put in the case. A very few broken combs, if cased, will make a dauby mess, as the honey will cover much of the case bottom and drip thru, thus disgusting all who may in any way later handle the honey.

I usually case my nicest honey first, which I grade as No. 1. That not so white in comb, or a little colored by the bees, and combs not so complete, is styled No. 2. The honey in the cases of each grade should be uniform in quality. The honey next the glass in each case should be no nicer than that in the central part. The honey should in other ways be cased so that to see the combs next the glass, as it stands in the store or commission house, may be an evidence of the quality of the whole case without further inspection. When honey is so put up, the purchaser, whether grocer or consumer, can take it, and handle it comb by comb with satisfaction in selling or using. Every bee-keeper has his own reputation to build up and hold; if he expects good sales in the future, his goods should be as represented by the honey in full view.

The partially filled supers taken off at the close of the summer harvest should be looked over, and all complete boxes cased for sale, and those not so filled returned to the hives at the opening of the fall honey-flow, if such comes.

For the second grade I use very few uncapt combs, or those combs not nearly all capt. I sell some of the partially capt combs to neighbors, or to those who call and may see and prefer it at a lower price. Those not sold at the close of the honey season are emptied and used the next season. My honey-cases have two glass sides, which show off the honey to good advantage, and aid sales. The covers are tight fitting, and come over to the outside of the cases thus keeping out all dust, etc.

Carroll Co., Ill.

New Apilarian Inventions—Are They Needed?

BY JOHN H. MARTIN.

(Read at the last meeting of the California State Convention.)

EVERY bee-keeper recognizes that in order to get the most profit out of the bees, the business must be conducted upon a large scale. We have examples in many portions of the country where the owner of many apiaries, and at least a thousand colonies of bees, are the ones that are deriving the greatest profit from them, and the profit is increased according as they adopt short cuts in the labor, and where hired help is dispensed with as far as possible.

While working our bees for extracted honey, our present method of removing each frame separately and brushing the bees therefrom, and stirring them up to a high state of anger, may be classed as a primitive and roundabout way of management.

I will outline some work that is being done along this line with some degrees of success. In the first place, a shallow super is required. If the cover is quietly removed from such a super, and a cloth saturated with a solution of carbolic acid is spread over it, the bees, having a dislike to the odor, will soon leave the super, and it can be removed. Or a shallow super that is fitted with close-end frames that can be held firmly in place can be rid of the bees by a peculiar method of shaking.

The Porter bee-escape has been recommended by some bee-keepers, but it is too slow in its operation, and on that account should be discarded for this particular purpose.

Then, when the exigencies of the time demand, we will have a machine for uncapping the honey. I have gone so far with some experiments in this line that I am quite sure that a machine can be constructed that will uncap six or eight combs in just a few seconds; or, in other words, you touch the button and the machine will do the rest.

When a bee-keeper can uncup a number of combs as quickly as he can one side of one comb, there is a distinct gain in time, and a consequent reduction in the cost of production.

An ordinary two-frame honey-extractor will, when the combs are well filled with honey, enable us to extract ten pounds at one operation; and to double this amount the four-frame extractor has been introduced; but now we need in a large apiary, and to follow the lightning uncapping machine, an extractor that will enable us to extract 100 pounds at one operation, and nearly as rapidly as one man can extract ten pounds with a small machine. The labor then would in a great measure be with the care of the honey, getting it into cans and to market.

I also certainly expect that the automobile will play an important part in honey production. There is no bee-keeper who feels safe to drive a span of horses near a bee-ranch, except in the night, and we learn of the death of horses every year from the stings of angry bees. The automobile will enable the bee-keeper to approach, or pass directly thru, the apiary with his load of appliances and honey at any reasonable hour; and the automobile can be used for a variety of purposes in the apiary, running a saw, running the extractor, or anything where light power is needed.

Franklin's printing press was a crude affair, but it answered the purpose when Franklin was a printer, and the circulation of papers was limited, but Franklin's press would make a sorry show beside the modern lightning press; but the bee-keeper's interests are not so extensive, like the making of newspapers, and inventors will not give their time to the invention of appliances that will have but limited sale; but we may be quite sure that if the business had warranted it, such rapid manipulation as I have outlined would have been in use long ago.

When we further consider the subject of new inventions for the apiary and its management, we find that there is room for improvement in every line of our work. The smoker with which we subdue our bees is too large and cumbersome to operate with dispatch. In fact, with any of our bellows smokers quite a percentage of our time is spent in working the bellows. My ideal smoker would be not overlarge, and with it I would have a proper, prepared fuel, and it should be self-operating; and so arranged that both hands of the bee-keeper can be used in the manipulation of the hive while the smoker is doing its part automatically.

We need new and fancy packages for small amounts of honey, something that can be sold on the street and on the lines of transportation.

Such a package was sent to me some time ago, and it worked like a charm. The honey could be eaten from it as it was held in the hand, but there was a strong objection to

the material it was made from. It was made from the same material that forms the covering for sausages. Such material is all right when applied to sausages, but there is an evident unfitness of things when applied as a receptacle for honey.

The foregoing improvements I think will occupy the attention of bee-keepers in the near future, and greater than these will certainly be developed if the exigencies of our industry demand.



"The Importance of Water for Bees."

BY G. M. DOOLITTLE.

ON page 482 is a most remarkable article, considering that it comes from the pen of that careful observer, Prof. A. J. Cook. Not that I think that we know "all that is to be known regarding the use of water in the apiary," but facts go to prove that his analogy regarding the bees and higher animals is faulty, and his logic mainly theory rather than logic coming from close observation.

Did Prof. Cook ever see a bee perspire? If so, he has seen something I never saw, and I have looked particularly on this point. He has doubtless seen perspiration stand on nearly all of the higher order of animals. He quotes bees dying of suffocation as proof of perspiration. But had he touched his tongue to one of those bees just dead from the "water of respiration," and "of perspiration," he would have found that instead of a "mass of dead bees and water," he had a mass of dead bees and stickiness, thus showing that in their dying efforts the bees had disgorged the honey they had taken thru their disturbance caused by being shut up. And had he allowed these "stuck up" bees their liberty just before death overtook them, in a place where they could "wallow" in the dust and dirt, as I once happened to do, he would have found that the dust and dirt was fastened to them after dry, very much as paint is fastened to a building, rather than becoming a dust that would rub off easily, as dust always will where only water is mingled with it.

Again, facts prove that bees visit watering-places to any great extent only when brood is being reared, instead of at times of greatest heat and activity, as Prof. Cook's theory would lead him and us to believe.

Let me give some facts which I have observed almost times without number. In March, April and May I have seen bees by the thousands repairing to the watering-places with the mercury at from 45 to 50 degrees—so cold that, should a cloud pass over the sun, hundreds and thousands would remain chilled, and die from the cold and frosts of the night following. Were they in a state of perspiration then? No. Well, what were they out at the watering-places for? Thousands and millions of little larval mouths "watering" at home, for water to mix with honey and pollen so that these little larval mouths might have chyle to eat that they might grow into imago bees. Can it be that Prof. Cook never observed bees at watering-places at such times as this?

Now let us change the time of year. Several years of my bee-keeping life have given very hot weather during September and October, after brood-rearing had nearly or quite ceased, and during these months with this extreme heat often came a great gathering of "honey-dew," so that the bees were as active and the weather just as hot as it ever is during basswood harvest, the mercury standing up in the 90's, and the bees rushing pell-mell in and out at the entrance every day for a few days, while the heat and dew lasted, but thus far neither lasted long enough (or else it was out of season) to start brood-rearing to any extent. Did I find any bees at the watering-places "slaking their thirst," or getting water to take the place of that thrown off by perspiration? No, not a bee there, or very few at most. Why? Because there were no larval mouths in the hive calling for water in the chyle not being prepared.

Once more, and I will leave other facts to rest till Prof. Cook meets these given. When we handle combs of brood, the larvae in which are nearly ready to seal, or have just been sealed, are they heavy or light? I have weighed combs of brood, the central portion of which was just sealed, and the remainder nearly ready to seal, which weighed $4\frac{1}{2}$ pounds, while the same frame when full of sealed honey weighed six pounds, and when empty $\frac{3}{4}$ of a pound. Where and from what source did this weight mainly come? Was it the honey the larvae contained? Was it the pollen they had eaten? Prof. Cook knows, and the readers in general know, that said weight was water, to

nearly or quite as great an extent as, Prof. Cook tells us in his article on page 482, enters into the composition of fruits and vegetables. Where did this water come from? Some from the honey in their food, some from the pollen which entered into the chyle formed, but mostly from the "rill" or watering-place which the bees visited to secure the necessary water for the chyle out of which the larval bee grew from the tiniest speck scarcely discernible to the naked eye, until each comb full weighed nearly or quite four pounds, 90 percent of which was water.

With six combs of brood to the hive we have an approximate weight equal to about 20 pounds, or 2½ gallons of water; and yet Prof. Cook would have us believe, "I doubt then if it is correct to say that bees need water to aid in brood-rearing." Oh, Professor!

Onondaga, Co., N. Y.

Questions and Answers.

CONDUCTED BY

DR. C. C. MILLER, Marengo, Ill.

[The Questions may be mailed to the Bee Journal office, or to Dr. Miller direct, when he will answer them here. Please do not ask the Doctor to send answers by mail.—EDITOR.]

Colonies Building Drone-Comb.

I have two colonies with queens hatcht last spring. For awhile they built nice worker-comb and I supposed they would do so all summer, but since they became populous they have been determined to build drone-comb. Will it do to cut out the drone-comb, and after pitching out the larvæ, put the new drone-comb into sections for the bees to fill with honey?

BEGINNER.

ANSWER.—Yes, but it will be a tedious job to pick out the larvæ one by one. Sprinkle fine salt on them, and the bees will clean them out, but you must be sure to miss none. If left out of the hive a few days, the bees will clean them out when given to them. But it will do little good to cut drone-comb out of the brood-combs, unless you fill in the places with patches of worker-comb or foundation, for if left to themselves the bees will promptly fill up again with drone-comb.

Clovers for Tennessee.

1. I want to sow some kind of clover this fall that will bloom next summer for my bees, and for hay. Will either one of the sweet variety bloom next summer, if sown this fall or next spring?

2. Will alsike or alfalfa clover do as the above? I mean for Tennessee, as I want to buy the right kind.

3. Will any of the above-named clovers be a torment to the farm, as it has been said of the sweet variety?

TENNESSEE.

ANSWERS.—1. Neither white nor yellow sweet clover will bloom next summer if the seed is sown next spring, but either will bloom next summer if sown so as to start growth this fall.

2. Alfalfa will not bloom the first year, but alsike will.

3. Neither one of them is troublesome on cultivated ground, but sweet clover is persistent on the roadside. It is a mistake to think that sweet clover is hard to kill out on cultivated ground. It grows one year and blooms the next, and then dies out root and branch the second winter. It can be plowed under so as to prevent going to seed, and that's the end of it.

Holy Land Bees—Filling the Brood-Nest, and Avoiding the Super.

1. All things equal in the spring, and allowing each colony to swarm once, which will get the more surplus comb honey, a colony of 3-banded Italians, or Holy Land bees? Are Holy Land bees very savage?

2. Would a cross between 3-banded and golden Italians be an improvement? I have heard that crosses usually are better.

3. A colony declines to go into the super, but fills the

brood-nest with honey; I have furnisht a young queen, and she has scarcely any room to lay; I have no extractor, and I don't know what to do.

MINNESOTA.

ANSWER.—1. Taking both kinds as the average, it might be safest to risk the Italians. Root's A B C of Bee-Culture says: "The Holy Lands seem quiet enough, and the queens are enormously prolific; but for some reason or other, at the present writing quite a number of the friends are getting rid of them, and going back to the Italians again, as more gentle."

2. A first cross is likely to show increast vigor; but without care in selection the successors of that first cross are likely to deteriorate.

3. About the easiest thing to do is to get an extractor, and you may find this a profitable investment if you have several colonies. However, it may be better to get the bees to empty the combs than to empty them yourself. Uncap the honey in the parts of the combs that you think ought to be occupied with brood. Instead of uncapping with a sharp knife, it may be still better to scratch the surface with a three-tined fork. The tines of an ordinary table-fork are too far apart for best work. Tie them together with fine wire so that the points shall be about 3-16 of an inch apart. Of course the wire must not be too close to the ends of the points, say half an inch, or more, distant. Still another way is to take a common wire hair-brush and strike repeatedly upon the cappings hard enough to pierce them. The bees will clean the honey out, giving the queen room to lay, and this also tends to have the emptied honey stored in the sections. You can aid the matter by giving a bait-section in the super, a section that is partly or wholly drawn out; a good way being to take a half-filled section from a colony storing well in the super, taking bees and all.

Tulip or Whitewood—Uniting Weak Colonies.

1. Will the tulip or whitewood tree live and thrive in northwestern Iowa?

2. I had a colony of bees in a home-made hive which in the spring showed signs of having had the bee diarrhea, and I of course had to feed them, as they did not have any honey left in the combs. They did fairly well for awhile, but were attackt by the bee-moth and became so bad that I united it with a weak after-swarm. Both swarms had queens. The swarms united quite peaceably. Is there danger of both queens getting killed? or do you think that I ought to have killed one queen?

IOWA.

ANSWERS.—1. Somewhat doubtful. I made a little attempt at it without success, but possibly you might do better.

2. There is not much danger that both queens were killed. Indeed, it is a common practice to unite two colonies without paying any attention to the queens, unless there is a choice of queens, when the poorer is killed.

Please don't blame the bee-moth unjustly. The colony did not fail because the moth attackt them, but the moth attackt the colony because the bees had reacht the point of failure. If you want to bid defiance to the moth, keep all colonies strong. Even a rather weak colony will keep the moth at bay if the bees are Italian or partly Italian.

Colonies Seemingly Queenless.

I am a beginner in bee-culture, and in looking thru my 14 colonies of bees I found two colonies seemingly queenless. There were no eggs or brood in any stage. I gave them each a frame from a strong colony containing eggs and brood in all stages, and two days later I found no queen-cells. What shall I do?

OREGON.

ANSWER.—The great probability is that a virgin queen was present, and most likely before this answer appears she will be laying all right. You did exactly the right thing. Of course there is a possibility that the virgin queen may have been lost later, and a week after giving the first frame of brood it may be well to give another, if you do not find the queen yet laying.

There is a possibility that the bees were hopelessly queenless, and slow about starting queen-cells, and that altho no queen-cells were started within two days, they might be started later. If the bees have not been queenless so long as to be old and reduced in strength, a continued giving of brood, especially young brood, will result successfully.

The Afterthought.

The "Old Reliable" seen thru New and Unreliable Glasses.
By E. E. HASTY, Richards, Ohio.

A NOSEY BRIDGE.

Notwithstanding the woe pronounced upon those "who do their trades forsake," I'm going to go into a new trade, to-wit, bridge-building. Think I can profitably construct a bridge out of the *noses* of those who wrote in Nos. 28 and 29. These sage lucubrations are too far after date; and the above seems to be the most practical way to catch up a little.

CRIMSON CLOVER AS A HONEY-PLANT.

That crimson clover that opens No. 30 looks familiar—and it's sad to part with so good a friend. The last two winters at this point have been bad about killing things, crimson clover included; and I sadly fear our farmers have been frightened out of sowing it—quite a calamity. Twenty bees to the square foot is almost amazing. Mr. Greiner is reliable, I believe; and no such crowd of bees would come unless there was considerable honey. Say, some of the boys where the crimson is plenty try a little rivalry with Notre Dame, and do some May extracting.

QUADRUPLE HIVES—OUT-APIARIES.

The picture on page 467 tells a plain story about the France quadruple hive. It seems rather a wonder that this hive, described long ago, has been adopted by so few. Some of its points look quite attractive.

Have your out-apiary on a slope so one man can pull in the empty wagon from above, and the crew can run out the loaded wagon below, without bringing any horses in dangerous proximity to bees. (Better than ku-klux robes on the horses.) Temporary extracting-house of cheese-cloth, made up with strips of leather in at the proper places. Permanent posts and margin strips. To put up house, just drive (half way) a few wire nails thru the leathers; and pull the nails out when you fold up *a la Araba*.

UNFINISHT SECTIONS.

Deacon reminds us once more that apiculture is a business of details. Yes, that's so, details with a spice of sharp tails sprinkled on now and then—and a few dull tales taken betimes medically. Two thousand unfinished sections in one season! And their owner almost thinking of suicide! A familiar experience to many of the boys; but some remedy ought to have arrived before this. My system requires 200 to start out with next season (can do with 100), and I almost always wish I had more. Like the oculist who takes your eye out, and fixes it, and puts it back again, Mr. D. (having postponed suicide till another year) cuts the comb out, renovates both comb and section, and then marries the twain again with a hot case-knife. I suspect that his style of setting empty combs in a section is worth remembering and trying. Hold the comb gently against the wood, and fiddle between with a hot knife, and suddenly, all at once, the comb is fast. Page 467.

AGAINST EXTRA-CLOSE FRAME-SPACING.

Doolittle sits hard (but none too hard, I think) on extra-close spacing for frames. More fuss for yourself, less heat for the early brood, bother in exchanging frames, more danger in out-door wintering—and advantage, nobody knows what. And Mr. D. thinks that the delay necessitated by the Heddon method of transferring puts it entirely out as an early spring method. When there is no more hope of a crop from that hive, Heddon method O. K. then. Page 468.

KEEPING UNCOOKT FRUIT IN HONEY.

Mrs. Axtell years ago won her recognition as a reliable writer, and if she finds all her efforts to keep uncooked fruit in honey to be failures (others finding the same), probably we would better set that down as only practical under exceptional conditions. Page 477.

VARIOUS KINDS OF DISEASED BROOD,

Page 471 gets at distinctions which are urgently needed in pretty nearly the right way—differentiation. Without this a description of diseases and things is pretty sure to

mix us up in our minds. Foul brood, smell of glue; black brood, sour smell; pickled brood, no very pronounced smell (I take it). Foul brood, curiously elastic consistence; black brood, jelly-like consistence; pickled brood, neither rope nor jelly, but a watery willingness to squeeze out. But pickled brood often turns black by reason of a black fungus that attacks it. And is black brood black looking at all stages? I've forgotten, if any one ever told.

CATNIP VS. SWEET CLOVER.

Four times as much honey in catnip as in sweet clover, is the way J. L. Gandy puts it. Yum, yum! Page 474.

"AGIN" THE COTTON-WASTE SMOKER-FUEL.

How about the new smoker-fuel, page 473? Well, I think we already have propolis on our hands (both figuratively and literally), and some other dirtinesses unavoidable, and I decidedly object to importing wheel-grease from the railroads. No need of it.

IS IT A "FREE MASON" APIARY.

Wonder if I see the White apiary correctly. Do I faintly see the front of the hives markt with Free Mason signs—diamond, cross, clover leaf, double column, straddle-bug, etc.? If it's on the "square," and within the "compass" of sweet reasonableness, he might tell us about it. Page 481.

BEESWAX—CORRECTING THE CORRECTERS.

The Chicago Record's article on beeswax was pretty full of errors; but I fear the correcters corrected too much. Locality does come in to a limited extent on beeswax. African wax is not like American, if I am right; and wax imported from Jamaica has a fine red tint, and a peculiar fragrance never found in northern samples. Dr. Miller may be right that fresh wax-scales direct from the bee are always the same tint; but my *idea* of the matter has been that some are nearly white, and some quite a bit more yellow, the exact tint depending upon how recently that individual bee has been digesting pollen to feed larvæ. How is that, ye experimenters? It is quite desirable that when experts correct the great journals they should correct correctly. Page 483.

"HOW TO GET THE MOST OUT OF YOURSELF."

This is so important a topic that I should like to see every able writer in beedom essay it—not all at once perhaps, but anon and anon. How *not* to do it is a science sadly in vogue. Old Grimes does well on it, page 484—one of the best articles he has given us. Get clear in soul. Translate "Quit your meanness" into the terms of bodily health. (But there's lots of room for others in the details of the clarification and translation.) Then feed your mind liberally, and go ahead. Especially good is the counsel to teach little children never to get into debt—then one mortgage upon the mind and leaden weight upon the soul will never hinder them.

MANAGING LATE SWARMS.

Not over 18 hours afterward, Doolittle says (and I guess that's an important item), give to the colony that has swarmed and been moved to a new location a virgin queen or ripe cell. The poverty of soul that accepts anything you give them will not last but a little while, and it is essential to use it before it gives place to a bumptious *esprit du corps*. Wonder if 18 hours is not a slip for 28 hours. Otherwise it would run out, and not cover the "any time during the forenoon of the next day," of which we read. Page 485.

SWARMING "A-FOOT."

The swarm of bees traveling on foot, reported on page 486, is of decided interest. I never had exactly that; but I once had a swarm that *might* have proceeded similarly had the ground been smooth and hard, and had I let them alone. A swarm in an apple-tree, with grass underneath, left for the woods. After some 20 minutes, perhaps more, they came back and alighted on the ground. It seems the queen, unknown to me, had fallen there.

RAINBOW OR CALICO-COLORED CUBAN SOIL.

No previous writer on Cuba has told us about its calico-colored soil, as I remember. To see on one acre of hillside soil white, black, brown, yellow, blue and red is quite unique. But as the Cuban bogey-man is not going to spoil our markets with floods of untariffed honey, we can afford to let them have all the rainbow they want in their soil. T. B. Drury, page 491.

ROOT COMPANY'S PAGE.

SHIPPING-CASES.

Our No-Drip Cases are still in the lead. We keep constantly on hand a large assortment from 12-pound size up. We also make special sizes to order.

That Root's Cases are in demand is shown by the fact that one dealer alone has ordered 16,000 this season.

WINTER-CASES.

Our Winter-Cases are made of thin lumber dovetailed at the corners, with a telescope cover.

The cost is only 75 cents each singly, yet for convenience they are unsurpassed, and only excelled by the chaff hive in the protection afforded. Don't let your bees winter-kill or spring-dwindle when you can avoid it by using our Winter-Cases.

RUBBER GLOVES.

This is the time of the year when you need gloves, for robbers are about the bees and they are harder to handle than earlier. Take comfort with a pair of our gloves.

Ladies' sizes, Nos. 6, 7, 8 and 9, \$1.35; postage, 5c
Gents' sizes, Nos. 10, 11 and 12, \$1.45; " 5c
Extra long driving, Nos. 13, 14, \$1.70; " 10c

Mark size of hand on sheet of paper when ordering. If you order by number, remember that in rubber you need two sizes larger than you wear in kid; i. e., if you wear No. 6 in kid you will need No. 8 rubber.

BICYCLES

In trade for honey at market prices.

"Having sold a carload of bicycle crates, we took in trade a quantity of machines which, so long as they last, we will sell **AT COST**."

A \$30.00 bicycle—"Pathfinder"—made by the National American Cycle Company, Akron, O., for \$17.00 cash or \$20.00 in trade for honey of good quality at market prices. Catalog and further particulars will be sent on application. Send a sample of your honey and we will give you price we will allow.

COMB FOUNDATION.

Not too late yet to order Comb Foundation for the fall flow. If you order Root's Weed Process you may be sure you will be pleased with the result. We keep in stock the four grades in boxes of 1, 2, 3, 5, 10 or 25 pounds.

A small order has the same attention as an order for a ton.

SPECIAL GOODS.

This is the time when you should order odd size or special goods. Our busy season is over and we can do almost any work in wood you want, etc., for bee-keepers or others.

We make a specialty of packing-boxes, from the size of a section-box up. Let us figure with you.

FEEDERS.

How about your winter stores? Are you sure your bees have enough? Should it be necessary to feed you can't do it easier than with our Division-Board Feeder. This is made to hang like a frame in a Langstroth hive. Price, 20 cents each, complete. Less in quantities.

Honey-Labels.

Do you use labels for your honey? Are they really **ATTRACTIVE** labels? If you do not you may be losing many sales because your honey lacks attractiveness. You can't expect to market your honey at the best price unless you use every care in putting it up. Send for our label catalog and see our 1, 2, and 3 color labels.

Tin Packages for Honey.

If you are one of the people who market extracted honey in small lots you will find our pails just what you want. A dozen sizes and kinds to select from. We also furnish square cans—1-quart, 2-quart; 1-gallon and 5-gallons. A single can or carload, as you wish. Write for prices.

Gleanings in Bee-Culture.

When our advertisers write us that their advertisements have paid them well, we know **GLEANINGS IN BEE-CULTURE** must be read by the best bee-keepers. We know, too, that **GLEANINGS** is appreciated, for our circulation is increasing all the time. Send 25c for a six months' trial and get A. I. R.'s Notes of Travel and hundreds of other interesting things.

Comb-Foundation Mills.

Perhaps you are so far from us and rates are so high that you want to make your own foundation.

Our mills are being improved constantly. If you want to purchase a foundation mill, send for package of samples showing different styles we can furnish. Send 2c stamp for these.

Bushel Boxes.

Bee-keepers are always looking for labor-saving ideas. Have you ever read our 16-page pamphlet, "Handling Farm Produce?" It is full of information and gives prices of bushel boxes and other things. Free for the asking.

HONEY-EXTRACTORS.

"Operator No. 6 puts the honey-combs in the extractors, which is a Cowan 4-frame reversible, with ball-bearings and lever-brake—in short, the **best extractor on the market**."

Extract from article of N. E. France, of Wisconsin, in June Review. No one is better qualified to judge the worth of an extractor than Mr. France. He says the **ROOT COWAN IS THE BEST**. Thousands of others say so.

Glass Honey-Packages.

We have all sizes of Mason Jars with aluminum or porcelain-lined caps. Also Jelly Tumblers, two sizes; Glass Pails, four sizes; and Self-Sealing Jam Jars. Besides these we still have the four sizes square jars, which have long been on the market. Don't forget us when you need glass packages for honey.

RUBBER STAMPS.

Have you ever thought how handy it would be to use a rubber stamp to mark your honey-cases, showing the grade? Then, too, if you sell in the home market you ought to have your name on the case so it would be returned. We make stamps of all kinds for all sorts of purposes. Let us send you our rubber stamp circular.

QUEENS.

We don't say much about our queens, do we? I suppose some of our friends wonder why. Let us tell you: We began selling queens many years ago. We know all about the business from A to Z. We have the best breeding queens to be found in this country or Italy, and the best apiarist to be had. The result is our colonies do not begin to furnish enough queens for our orders. Our queens are **unsurpassed**. You will find it so if you buy them.

HONEY.

We buy a number of carloads of comb and extracted honey each year. If you have secured a good crop send us your offer. You don't have to worry about the returns if you sell to us.

If you have extracted honey send sample. If you have failed to secure enough for your home market, let us supply you. We have honey engaged all over the country, and can ship direct from the producer, many times.

AGENCIES.

A list of our principal agencies will be mailed you on request. We can ship from stock such items as our regular Hives, Sections, Foundation, Extractors, etc., from these agencies.

Send your order direct to us, if you prefer, and request that we ship from nearest point, and we will do so, saving you freight charges and giving you quick delivery.

THE A. I. ROOT COMPANY, Medina, Ohio.

SWEET CLOVER

And Several Other Clover Seeds.

We have made arrangements so that we can furnish Seed of several of the Clovers by freight or express, at the following prices, cash with the order:

	5lb	10lb	25lb	50lb
Sweet Clover (white)	60c	\$1.00	\$2.25	\$4.00
Crimson Clover	70c	1.20	2.75	5.00
Alsike Clover	80c	1.50	3.50	6.50
White Clover	90c	1.70	3.75	6.50
Alfalfa Clover	80c	1.40	3.25	6.00

Prices subject to market changes.
Add 25 cents to your order, for cartage, if wanted by freight.

GEORGE W. YORK & CO.

118 Michigan Street, CHICAGO, ILL.

BEE-SUPPLIES!

Root's Goods at Root's Prices

POUNDER'S HONEY-JARS and everything used by bee-keepers. Prompt Service—low freight rate. Catalog free. WALTER S. POWDER, 512 Mass. Ave., INDIANAPOLIS, IND.

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PATENT WIRED COMB FOUNDATION

Has no Sag in Brood-Frames.

Thin Flat-Bottom Foundation

Has no Fishbone in the Surplus Honey.

Being the cleanest is usually work the quickest of any foundation made.

J. A. VAN DEUSEN,

Sole Manufacturer,

Sprout Brook, Montgomery Co., N. Y.

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Rocky Mountain Bee-Plant Seed!

(*Cleome integrifolia*.)

...FREE AS A PREMIUM...

The A. B. C. of Bee-Culture says of it: "This is a beautiful plant for the flower-garden, to say nothing of the honey it produces. It grows



from two to three feet in height and bears large, clusters of bright pink flowers. It grows naturally on the Rocky Mountains, and in Colorado, where it is said to furnish large quantities of honey."

We have a few pounds of this *Cleome* seed, and offer to mail a 1/4-pound package as a premium for sending us ONE NEW subscriber to the American Bee Journal, with \$1.00; or 1/2 pound by mail for 40 cents.

GEORGE W. YORK & CO.

118 Michigan St. CHICAGO ILL.



GENERAL ITEMS

Bees Doing Well.

I have 150 colonies of bees, and they are doing well. I have taken off 2,000 pounds of honey already.

ALPHA CRANK.

Oscoda Co., Mich., Aug. 19.

Poorest Season in Ten.

I have kept bees for 10 years, and this is the poorest season I have seen. Everything has failed, even buckwheat. I will have to feed my bees.

C. G. ASCHA.

Berkshire Co., Mass., Aug. 21.

Transplanting Sweet Clover.

Having a piece of land sown to sweet clover, and wishing to double the sweet clover pasturage for my bees by the addition of more land which should be sown to sweet clover, but not wishing to wait so long for bloom from seed, I transplanted sweet clover plants last November, and any of the plants that winter-killed I replaced last March; at the same time sowing sweet clover seed between the rows of plants which were 5 feet apart each way. I thus secured early bloom, not having to wait a year for the bloom.

I am well pleased with my venture of setting out plants, and shall plant more every year. WM. H. EAGERTY.

Republic Co., Kan.

Lost Swarms.

I've just read the contribution of Mr. Harry Lathrop, on page 486, on "How a Swarm was Lost," etc. Now, here is another, and stranger still:

In the spring I helped a neighbor clip his queens, and said to him that there would be little or no danger of losing a swarm hereafter. Some time after, while at dinner, a swarm came out of a hive of a clipped queen, and left without clustering. The owner arrived on the scene just in time to hear them say "Good-bye." He thought it very queer with a clipped queen. Curiosity incited him to examine the inside of the hive, where he found the clipped queen in peaceable possession, but the majority of the bees gone. I have a theory to account for this anomalous condition, but would like to hear if any others have known like occurrences.

WM. M. WHITNEY.

Kankakee Co., Ill., Aug. 2.

Death of Mr. R. L. Hastin.

My dear husband, R. L. Hastin, departed this life July 27, 1900. He had been a sufferer from consumption for over 10 years. At last he had a hemorrhage of the lungs and lived only about five minutes. He was snatched away so quickly that he didn't have time to talk to us, but gave me a hope of his being saved, by clapping his hands. I also have the witness of the spirit that all is well with him.

He read the American Bee Journal with so much interest every week. He

Sharples Cream Separators: Profitable Dairying

If You Want Bees

That will just "roll" in the honey, try Moore's Strain of Italians, the result of 21 years of careful breeding. They have become noted for honey-gathering, whiteness of cappings, etc., throughout the United States and Canada.

Warranted Queens, 75c each; 6 for \$4.00; 12 for \$7.50. Select warranted, \$1.00 each; 6 for \$5.00; 12 for \$9.00. Strong 3-frame Nucleus with warranted Queen, \$2.50. Safe arrival and satisfaction guaranteed. Circular free.

27Dtf J. P. MOORE (lock box 1) Morgan, Ky.

Please mention Bee Journal when writing.

Italian Queens!

reared from the best 3-band honey-gatherers, by the Doolittle method. Untested, 45 cents each; 1 dozen, \$4.50. Tested, 75 cents each; 2-frame Nucleus, with tested queen, \$1.75 each. No disease. Safe arrival.

W. J. FOREHAND,

19D12t FORT DEPOSIT, ALA.

ADELS—HIGHEST GRADE ON EARTH

Three Select Breeding Queens, \$2.75,

BY RETURN MAIL.

HENRY ALLEY, Wenham Mass.

33Dtf Mention the American Bee Journal.

SUPERIOR HONEY QUEENS. Bred from our superior strain of Italian Queens. Untested, each, 50 cents; 1/2 dozen, \$2.75; tested, 75 cents; 1/2 dozen, \$4.00. LEININGER BROS., 33Dtf Fort Jennings, Ohio.

Please mention Bee Journal when writing.

H. G. Quirin, the Queen-Breeder,

Is as usual again on hand with his improved strain of

★GOLDEN★

ITALIAN QUEENS.

The A. I. Root Co. tell us that our queens are EXTRA FINE. We obtained thru special correspondence a breeder from Doolittle, who says, "If there is a queen in the U.S. worth \$1.00, this queen is." Queens bred from her, soon as they begin to lay, \$1.00 each.

Queens promptly by RETURN MAIL. We guarantee safe delivery.

Price of Queens after July 1.	1	6	12
Warranted	\$.50	\$2.75	\$5.00
Selected warranted75	4.00	7.00
Tested	1.00	5.00	9.00
Selected tested	1.50	8.00	
Extra selected tested	3.00		

Bees from these Queens all yellow to tip.

Address all orders to

H. G. QUIRIN, Parkerstown, Erie County, Ohio.

34A6t Please mention the Bee Journal.



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for all time is the

Metal Wheel.

We make them in all sizes and varieties, TO FIT ANY AXLE. Any height, any width of tire desired. Our wheels are either direct or stagger spoke. Can FIT YOUR WAGON perfectly without change.

NO BREAKING DOWN.
No drying out. No rusting tires. Cheap because they endure. Send for catalogue and prices. Free upon request.

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Box 16 Quincy, Ills.

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FREE FOR A MONTH

If you are interested in Sheep in any way you cannot afford to be without the best Sheep Paper published in the United States.

Wool Markets and Sheep

has a hobby which is the sheep-breeder and his industry, first, foremost and all the time. Are you interested? Write to-day.

WOOL MARKETS AND SHEEP, CHICAGO, ILL.

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The Bee-Keeper's Guide

Or, Manual of the Apiary,

—BY—
PROF. A. J. COOK.

460 Pages—16th (1899) Edition—18th Thousand—\$1.25 postpaid.

A description of the book here is quite unnecessary—it is simply the most complete scientific and practical bee-book published to-day. Fully illustrated, and all written in the most fascinating style. The author is also too well-known to the whole bee-world to require any introduction. No bee-keeper is fully equipped, or his library complete, without THE BEE-KEEPER'S GUIDE.

This 16th and latest edition of Prof. Cook's magnificent book of 460 pages, in neat and substantial cloth binding, we propose to GIVE AWAY to our present subscribers, for the work of getting NEW subscribers for the American Bee Journal.

Given for TWO New Subscribers.

The following offer is made to PRESENT subscribers only, and no premium is also given to the two NEW subscribers—simply the Bee Journal for one year:

Send us TWO NEW SUBSCRIBERS to the Bee Journal (with \$2.00), and we will mail you a copy of Prof. Cook's book FREE as a premium. Prof. Cook's book alone sent for \$1.25, or we club it with the Bee Journal for a year—both for only \$1.75. But surely anybody can get only TWO NEW SUBSCRIBERS to the Bee Journal for a year, and thus get the book as a premium. Let every body try for it. Will YOU have one?

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California! If you care to know of 1st Fruits, Flowers, Climate or Resources, send for a sample copy of California's Favorite Paper—

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The leading Horticultural and Agricultural paper of the Pacific Coast. Published weekly, handsomely illustrated, \$2.00 per annum. Sample copy free.

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330 Market Street, SAN FRANCISCO, CAL.

laid on his bed and read it the day before he died. Oftentimes he would read a piece to me, especially the poetry—it always sounded so nice about the little honey-bee, and seemed to have the spirit of God in it, directing one's thoughts above. He did want to live so badly, and keep bees to make a living for his family. He had only 9 colonies, and they are not storing much honey on account of not having anything to work on. They are also needing new hives.

On account of Mr. Hastin's long-continued sickness I am left with no home and almost nothing to go on, with three little children to bring up. I am going to do my best to get along and keep the bees. I don't understand working with them much, as he did almost all the work, with my help.

MRS. ADA HASTIN.

Dade Co., Mo., Aug. 7.

[We wish to express our own sympathy, as well as that of all bee-keepers, Mrs. Hastin, in your great loss and sorrow. We trust you will be able to care for those little children, and that the bees may do better so as to be a help to you in your struggle to get along.—EDITOR.]

On the Increase—1 to 5.

This is how it all happened: Last spring I felt in need of some soul-stirring excitement, and I got it. It was in the shape of a 4-frame nucleus with a healthy queen of "scrapping" propensities. I lodged them comfortably under my cherry-trees and awaited results.

It wasn't long before I wanted to call on them, as it were, to show them my neighborly consideration; and say, they "saw the call!" They came at me with pat hands. They thought it a bluff, and it wouldn't work. I just had

DR. PEIRO,

34 Central Music Hall, CHICAGO.

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The Mississippi Valley Democrat —AND— Journal of Agriculture, ST. LOUIS MO.

A wide-awake, practical Western paper for wide-awake, practical Western farmers, stock-raisers, poultry people and fruit-growers, to learn the science of breeding, feeding and management. Special departments for horses, cattle, hogs, sheep, poultry and dairy. No farmer can afford to do without it. It stands for American farmers and producers. It is the leading exponent of agriculture as a business, and at the same time the champion of the Agricultural States and the producer in politics. Subscription, One Dollar a Year.

Write for Sample Copy

Golden Italian Queens.

By return mail, 75 cents each; \$7.50 per dozen. They pleased every customer this year; well, why not? They are the prettiest, gentlest and best hustlers you ever saw.

—Muth's—

Square Glass Honey-Jars.

Just the package for home trade. Full line of ROOT'S GOODS at their prices.

HONEY.

Have you any FANCY WHITE comb or extracted honey for sale? Also beeswax wanted.

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2146 Central Ave., Cincinnati, Ohio.

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BEES QUEENS
Smokers, Sectional, Comb Foundation And all Apian Supplies cheap. Send for FREE Catalogue. E. T. FLANAGAN, Ballwin, Mo.
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ARE YOU FULL OF GINGER?

If you want health and vigor, good appetite and sound sleep, take **LAXATIVE NERVO-VITAL TABLETS**, the quick and safe cure for Constipation, Nervous Dyspepsia, Insomnia, Nervous Affections, the "Blues" and all attendant evils. It aids digestion, purifies the blood, strengthens the nerves, improves the appetite, induces sweet sleep, tones up the whole system and makes you a new creature. It not only makes you feel well, it makes you really well. It gives you that vim and

LAXATIVE NERVO-VITAL TABLETS
vigor which makes life worth living.
It contains no narcotics nor bromides nor other injurious drugs. We give the formula with every box. You know exactly what you are taking. Originally put up for physicians' use. Ask your druggist for a **FREE SAMPLE**. If he hasn't it, don't take a substitute, but send us a stamp for our book on "Health" and we will send you a free sample, sufficient for you to try it and test its merits to your own satisfaction. Isn't it worth trying free? It positively cures. Price 10c and 25c per box. Don't delay sending.
The Modern Remedy Co., Kewanee, Ill.

to lie right down and pass. The way those bees boiled out of that 8-frame hive was great!

Well, thinks I to my lonely, there isn't room enough in that hive for so many, so I divided it in two. Got a queen for No. 2, and awaited results. Why, it didn't seem but a short time when both the colonies manifested strong predilections to swarming. So I divided them some more, then I had 3 colonies. Well, along in July, colony No. 1 got on the rampage, and I took out four full frames and made colony No. 4.

And what do you think? Along the forepart of August I got honey-hungry, and lookt into the only super I had on, but not a section filled! Then I concluded I would see what was the matter. I found out at once—about a million bees, or less, found a rent in my armor—the netting had failed to connect at the back of my head. It was their picnic, not mine.

After awhile I mustered up courage and a big smoke, and I showed the pesky things my feelings had been trifled with. I just put half of that family into an empty hive—and now have 5 good colonies, but not over 20 pounds of honey.

I don't feel real certain that I like honey, anyway!" EMM DEE.
Cook Co., Ill.

Severe Drouth.

The drouth has burned us here for this year. I have not taken over 200 pounds of honey to date, and have 80 colonies. JOHN DOTY.
Livingston Co., Mo., Aug. 13.

Getting Some Honey.

I am getting some honey. So far as I have heard I am the only bee-keeper in this locality who will get any. E. W. HAAG.
Stark Co., Ohio, Aug. 16.

Poor Season for Queen-Rearing.

This season (up to the present time) has been very disagreeable for queen-rearing; however, in consequence thereof, I have learnt some very valuable lessons. I have come to the conclusion that it is as necessary to feed nuclei during a drouth as it is the cell-building colonies, for without feeding nuclei poor queens will be the result, the same as if poor cells were used. All my nuclei now have permanent feeders attached, so that in the future I shall be prepared. H. G. QUIRIN.
Erie Co., Ohio, Aug. 17.

Somewhat Remarkable Season.

The season here thus far has been somewhat remarkable. It opened very flatteringly for a good crop of honey. White clover began to bloom the latter part of May, and by June 10 the pasture land and the roadsides were a mat of bloom, but scarcely a bee did I see on the bloom. The weather had changed from being quite warm to quite cool and dry, but shortly a change came. We began to have showers and warmer weather, which seemed to cause the white clover to secrete nectar. I ought to have said, the bees did a good business by way of gathering honey from the dandelion—the

SPECIAL NOTICE!

Last winter's cut of basswood is the whitest it has been for many seasons. We are now making sections out of this new stock and therefore are in a position to furnish you with the very finest quality in the market.

LEWIS WHITE-POLISHT SECTIONS

Are perfect in workmanship and color.

Orders shipped immediately upon receipt. A complete line of everything needed in the apiary. Five different styles of Bee-Hives.

Lewis Foundation Fastener simplest and best machine for the purpose. Price, ONE DOLLAR, without Lamp.

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"The Prohibition Hand-Book and Voter's Manual,"

Size, 5x7 inches; 50 Pages.

It contains Platform, Sketches, Pictures and Letters of Acceptance of Candidates and much valuable Statistical matter. Full of Facts. An Argument Settler. Pass them around. Price, 10c per copy, postpaid; \$1.00 per dozen, postpaid. Send your order at once to

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The Novelty Pocket-Knife.

Your Name and Address on one side—Three Bees on the other side.



[THIS CUT IS THE FULL SIZE OF THE KNIFE.]

Your Name on the Knife—When ordering, be sure to say just what name and address you wish put on the Knife.

The Novelty Knife is indeed a novelty. The novelty lies in the handle. It is made beautifully of indestructible celluloid, which is as transparent as glass. Underneath the celluloid, on one side of the handle is placed the name and residence of the subscriber, and on the other side pictures of a Queen, Drone, and Worker, as shown here.

The Material entering into this celebrated knife is of the very best quality; the blades are hand-forged out of the very finest English razor-steel, and we warrant every blade. The bolsters are made of German silver, and will never rust or corrode. The rivets are hardened German silver wire; the linings are plate brass; the back springs of Sheffield spring-steel, and the finish of the handle as described above. It will last a last-time, with proper usage.

Why Own the Novelty Knife? In case a good knife is lost, the chances are the owner will never recover it; but if the "Novelty" is lost, having name and address of owner, the finder will return it; otherwise to try to destroy the name and address, would destroy the knife. If traveling, and you meet with a serious accident, and are so fortunate as to have one of the "Novelty's," your POCKET-KNIFE will serve as an identifier; and in case of death, your relatives will at once be notified of the accident.

How appropriate this knife is for a present! What more lasting memento could a mother give to a son, a wife to a husband, a sister to a brother, or a lady to a gentleman, the knife having the name of the recipient on one side?

The accompanying cut gives a faint idea, but cannot fully convey an exact representation of this beautiful knife, as the "Novelty" must be seen to be appreciated.

How to Get this Valuable Knife.—We send it postpaid for \$1.00, or give it as a Premium to the one sending us 100 NEW SUBSCRIBERS to the Bee Journal (with \$3.00.) We will club the Novelty Knife and the Bee Journal for one year, both for \$1.00.

GEORGE W. YORK & CO., 118 Mich. St., Chicago, Ill.

Please allow about two weeks for your knife order to be filled.



Best on Earth

What? Our New Champion Winter-Cases. And to introduce them thruout the United States and Canada we will sell them at a liberal discount until Oct. 15, 1900. Send for quotations. We are also headquarters for the NO-DRIIP SHIPPING-CASES.

R. H. SCHMIDT & CO.
Sheboygan, Wisconsin.

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Belgian Hare Guide AND DIRECTORY OF BREEDERS. Price 25c.

Inland Poultry Journal Co., Indianapolis, Ind.

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and return, via Nickel Plate Road, Sept. 9th to 12th inclusive, account National Encampment Union Veteran Legion. Tickets good returning to and including Sept. 18th, 1900. Three thru daily trains from Chicago at convenient hours.

Chicago Passenger Station, Van Buren St. and Pacific Ave., on Elevated Loop.

For further particulars address John Y. Calahan, General Agent, 111 Adams St., Chicago. (35)

first time for years that there was a surplus stored in the sections—usually it is fed to the young brood.

About July 1 the basswood came into bloom, and such a rush—honey came in by the wholesale. I added the third set of supers to some of the swarms that issued in May. This rush only lasted about a week, and very suddenly and abruptly closed. I think there was too much rainfall.

There was a lull for two or three weeks, then things began to liven up again. Buckwheat came into bloom, and many of the honey-producing wild flowers, and now, at this date, the bees are putting in their best licks. Golden-rod, asters and heartsease are in bloom. The weather is very warm, and we have frequent showers. To me the outlook is good for a good yield of honey from now until frost comes.

Yesterday I had a swarm issue—one of, if not the, largest for the season. There must have been at least 10 quarts of them. I gave them two sets of brood-frames, of 8 each—16 frames—and am quite certain that by the way they have gone to work, in two weeks they will have the whole batch filled with honey. L. ALLEN.

Clark Co., Wis., Aug. 9.

Honey a Failure.

The honey crop is a total failure here. I don't know of a pound of honey that has been taken. I have 17 colonies of bees, and there are 30 or 40 colonies in this vicinity. No honey has been taken by any one here.

JAMES AKINS.

Putnam Co., Ind., Aug. 17.

No White Honey.

Bees are just commencing to whiten the edges of the top-bars for the first time this year. Not an ounce of white honey, so far. Unless buckwheat and fall flowers yield honey, bees must be fed for winter. CHAS. B. ALLEN.

Oswego Co., N. Y., Aug. 18.



Making Bees Do Hot-Bed Work.—Uncle Lisha gives the following in *Gleanings in Bee-Culture*:

"I don't know that it is quite orthodox, but I am fond of early vegetables, and, like the son of the Emerald Isle, I find 'it is never aisy to work hard;' and I find it a good deal of work to make a hot-bed every spring with manure and earth frozen hard, so I have just made me some boxes with old sheet-iron bottoms, and fill them with earth in the fall; and then in the spring when it is time I just take off the cushion from the top of the brood-chamber of some of my strongest hives and replace with these boxes of earth, and pack round the edges, and cover with glass. You can use, as you see, a box some 12 to 14 inches wide by 20 long. A good colony of bees will give just about the right amount of bottom heat, and the earth is about as good as a cushion to keep the bees warm, and there is no danger of too much bottom

High Grade Italian Queens



One Untested Queen.....\$.60
One Tested Queen......80
One Select Tested Queen 1.00
One Breeder.....1.50
One Comb Nucleus.....1.00

27 Years Rearing Queens for the Trade.
We Guarantee Safe Arrival.

J. L. STRONG,

14A1f CLARINDA, Page Co., IOWA.
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Italian Queens.

Untested Queens.....	1	3	6
Select Untested Queens.....	\$0.90	\$2.50	\$4.50
Tested Queens.....	1.25	3.25	6.00
Select Tested Queens.....	1.25	3.50	7.00
	2.00	5.00	9.00

These Queens are reared from honey-gatherers. Orders filled in rotation. Nothing sent out but beautiful Queens.

27A9f D. J. BLOCHER, Pearl City, Ill.
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Yellow Sweet Clover Seed

WE HAVE IT AT LAST!

We have finally succeeded in getting a SMALL quantity of the seed of the YELLOW variety of sweet clover. This kind blooms from two to four weeks earlier than the common or white variety of sweet clover. It also grows much shorter, only about two feet in height. It is as much visited by the bees as the white, and usually comes into bloom ahead of white clover and basswood. We offer the seed as a premium

A QUARTER POUND FOR SENDING ONE NEW SUBSCRIPTION.

So long as it lasts, we will mail a quarter pound of the seed to a regular paid-up subscriber who sends us ONE NEW subscriber for the American Bee Journal one year, with \$1.00; or ¼ pound by mail for 30 cents.

We have been trying for years to secure this seed, and finally succeeded in getting it. It is new seed, gathered last season by an old personal friend of ours, so we know it is all right. But we have only a small supply. When nearly out we will mention it.

GEORGE W. YORK & CO.,

118 Michigan St., - CHICAGO, ILL.

Albino Queens

by return mail. Untested, 75 cts.; warranted, \$1.00; tested, \$1.25.

12A26f J. D. GIVENS, LISBON, TEX.

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and return, via Nickel Plate Road, at rate of \$4.00 for the round trip, account National Encampment Union Veteran Legion. Tickets on sale Sept. 9th to 12th inclusive, with return limit of Sept. 18th, 1900, and will be available on any of our three daily trains from Chicago, at 10:35 a.m., 2:30 p.m., and 10:30 p.m., respectively. Vestibuled sleeping-cars and first-class service in every respect.

Chicago Passenger Station, Van Buren St. and Pacific Ave., on Elevated Loop. City Ticket Office, 111 Adams St., Chicago.

Write John Y. Calahan, Gen'l Agent, 111 Adams St., Chicago, for further information, or 'phone Central 2057. (34)

heat, as there is with a hot-bed. You can fix as many hives as necessary to supply your family with all the early plants you want, and it is but little more work to care for half a dozen such miniature hotbeds than one. And, besides, you can use old tin fruit-cans for tomato and other plants. Just put them in the fire and melt the solder and then tie them together with a string and they will hold just the right amount of earth for plants to grow in, and then you can transplant without disturbing the roots, and save time and money both."

Honey Dishonored in Europe.

The United States consul-general, James T. DuBois, at St. Gall, Switzerland, sends to the Department of State, at Washington, a lengthy communication on "Food Adulteration in Europe." Regarding honey, he says:

This delicious and, in its natural state, very wholesome breakfast dish is coming into general use on the continent of Europe; and the bees, being never so busy, can not supply one-third of the honey that is consumed, so some one must naturally make enough to supply the deficit. Thru a series of manipulations of almost everything containing saccharine, this is now being successfully and very profitably accomplished; and, of course, this industry flourishes best in those years when the bees have but little success in manufacturing the real article, which very often occurs.

The "dishonoring of honey," as it is called, is a growing art, and several successful establishments are now in operation, producing large quantities of this artificial honey for the market, and the product is in popular demand. The people seem to like it. It is cheap, and the sales are large. All sorts of ingredients enter into its manufacture, among which may be mentioned syrups, malt extracts of the lowest grades, meal of different kinds, and cornstarch.

From a pound of bee-honey 5 to 10 pounds of "dishonest honey" are made so successfully that it sometimes requires an expert to discover the deception.

Sweet Clover for Horses and Sheep.

—Dr. Miller had just cut two tons of sweet clover hay. I should say by the looks of it it was allowed to get rather too rank and tall to make the best hay; but as an object-lesson he opened the stable door and whistled for his three horses. They evidently supposed it was feeding-time, or for some special reason they were to be fed. All three marched into the barn, and turned their heads toward the mangers; but as nobody seemed to hinder them they marched over to the hay-mow and pitched into the sweet-clover hay. They first pick off the leaves and small twigs; but after they have trimmed off the stalks and can't get any more they eat up this dry brush, as it were. The doctor suggested something I never heard before—that, altho the horses would eat the green-growing clover with avidity, they preferred the cured hay; so he led one of them out in the yard and gave him a taste of some rank but tender shoots. Of course, he grabbed for this, but soon showed his

preference for the cured hay in the barn.

Just now it occurs to me that M. M. Baldridge said *sheep* were exceedingly fond of sweet clover; and, by the way, we are just making a test of using sheep according to Vernon Burt's plan, to keep the apiary slicked up from grass and weeds, making sheep take the place of a lawn-mower. We have fenced off a part of our apiary with wire-netting, and a ewe and her lamb occupy the inclosure. About the first thing the lamb did was to pick out all the sweet clover in the inclosure. Then it reached over the low fence for all that could be secured outside; and when the leaves and small brush were gone it began to devour the larger branches. I have seen so many cases of this kind I should like to see some cattle, horses or sheep that can not be taught to eat sweet clover.—A. I. Root in Gleanings in Bee-Culture.

Pat and the Bees.—In Charles Lover's "O'Donoghue," there occurs a remarkably rich passage illustrating the relations subsisting between an improving landlord and an untutored tenant. The agent presents the tenants to the worthy innovator, who inquires into the conditions of the grumbling and dissatisfied recipients of his favors. At length, on a tenant presenting himself whom the agent fails to recognize, the baronet turns to the figure before him, which, with face and head swollen out of all proportions, awaits his address in sullen silence.

"Who are you, my good man? What has happened to you?"

"Faix, and it's well you may ask! My own mother wouldn't know me this blessed mornin'. 'Tis all your own doin' entirely."

"My doing?" replied the astonished baronet. "What can I have to do with the state you are in, my good man?"

"Yes, it is your doin'," answered the proprietor of the swollen head. "'Tis all your doin', and may ye well be proud of it. 'Twas them blessed bees you gev me. We brought the devils into the house last night, and where did we put them but in the pig's corner. Well, afther Katty an' the childer an' myself was a while in bed, the pig goes rootin' about the house, and he wasn't aisy till he hookt his nose in the hive and spilt the bees out about the flure; and then, when I got out of bid to let out the pig that was a-roarin' thru the house, the bees settled down on me, an' began stingin' me, an' I jumpt into bid again with the whole of them afther me, to Katty an' the childer; and thin, what wid the bees a-buzzin' an' a-stingin' us under the clothes, out we all jumpt agin, and the devil such a night was ever spint

in Ireland as we spint last night. What wid Katty an' the childer! an' the pig tarin' up an' down like mad, an' Katty wid the besom, an' myself wid the fryin'-pan flattenin' the bees again the wall till mornin', an' thin the sight we wor in the mornin'—begor, it's ashamed of yourself ye ought to be."—Selected.

Nebraska.—The annual meeting of the Nebraska Bee-Keepers' Association will be held in the Honey Hall on the State Fair Grounds at Lincoln, Tuesday evening, Sept. 4th. We hope to see bee-keepers from other States present at that time, as well as our own apiarists.

E. WHITCOMB, Pres.
L. D. STILSON, Sec., York, Nebr.

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The Emerson Binder

This Emerson stiff-board Binder with cloth back for the American Bee Journal we mail for but 60 cents; or we will send it with the Bee Journal for one year—both for only \$1.40. It is a fine thing to preserve the copies of the Journal as fast as they are received. If you have this "Emerson" no further binding is necessary.

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are attempting to solve a gigantic problem, but they are going about it in the wrong way, and will never succeed. Some people, in this country, seem to think that they have as great a puzzle on their hands in selecting a location for a home. They will certainly go about it in the wrong way unless they inspect the beautiful farming country on the line of the Chicago, Milwaukee & St. Paul Railway, in Marinette County, Wisconsin, where the crops are of the best, work plenty, fine markets, excellent climate, pure, soft water; land sold cheap and on long time. Why rent a farm when you can buy one for less than you pay for rent? Address C. E. Rollins, Land Agent, 161 La Salle St., Chicago, Ill.

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This is a good time to send in your Beeswax. We are paying 25 cents a pound—CASH—for best yellow.

HONEY AND BEESWAX

MARKET QUOTATIONS.

CHICAGO, Aug. 24.—Fancy white comb honey is selling at 15c per pound, with No. 1 grades bringing 14@15c. There is not much demand at present, and will not be until this hot spell shall pass. Very few amber grades on the market and yet what there is does not sell. Extracted white, 7@7½c; amber, 6½@6¾c; dark, 6@6½c. Beeswax, 28c. R. A. BURNETT & Co.

CINCINNATI, Aug. 8.—The demand for extracted honey is slow, while the shipments are many. I quote as follows: White clover, 8@8½c; Southern and amber, 6½@7c. Comb honey sells as fast as it arrives at the following prices: Fancy, 16@16½c; No. 1, 15c. Beeswax, good demand, 25c. C. H. W. WEBER.

BOSTON, Aug. 8.—Fancy 1-pound cartons, 17c; A 1, 15@16c; No. 1, 15c; No. 2, 12@13c. Extracted honey from 7½@8½c, as to quality.

It is too early in the season and too warm for any inquiry on honey, so prices named are only nominal. The prospects in this vicinity seem to be for a light crop. BLAKE, SCOTT & LEE.

KANSAS CITY, Aug. 20.—Very little comb or extracted honey in the market yet. We quote: No. 1 white comb, 14@15c; No. 2, 13@14c; No. 1 amber, 13½@14c; dark, 11@12c. Extracted, white, 6½@7c; amber, 6@6½c; dark, 5@5½c. Beeswax, 25c.

W. R. CROMWELL PRODUCE CO.,
Successors to C. C. Clemens & Co.

DETROIT, Aug. 10.—Fancy white comb, 14@15c; No. 1, 13@14c; no amber or dark to quote. White extracted, 6½@7c. M. H. HUNT & SON.

BUFFALO, Aug. 25.—Fancy new 1-pound comb, 16@17c; choice, 14@15c; No. 2, 12@13c; No. 3, 10@11c; old, 10@14c. Fancy beeswax, 26@33c. Demand improving some. BATTERSON & CO.

NEW YORK, Aug. 25.—Comb honey is very good demand, and fancy white sells readily at 15 cents, and exceptional fine at 16 cents. Nos. 1 and 2 white, 13@14c; amber, 11@12c. No change in extracted. Beeswax firm at 28@28½c.

HILDRETH & SEGELKEN.

SAN FRANCISCO, Aug. 8.—White comb, 12@12½c; amber, 9@11c; dark, 6½@7½c. Extracted, white, 7½@7¾c; light amber, 6¾@7¼c; amber, 5½@6c. Beeswax, 26@28c.

There is not much honey coming forward at present from any quarter, neither is there very brisk demand locally or for shipment at full current rates. Water-white honey is the scarcest sort, and market for this description shows the most firmness.

WANTED—HONEY AND BEESWAX.

We have a tremendous and growing trade in this line, and would like to hear from all who have such goods to sell in any part of the country, with quality, description, and lowest cash price. THOS. C. STANLEY & SON, Fairfield, Ill.

WANTED COMB HONEY AND EXTRACTED HONEY.

Will buy your honey, no matter what quantity. Mail sample with your price expected delivered in Cincinnati. I pay cash on delivery. C. H. W. WEBER, 2146 Central Ave., CINCINNATI, OHIO.

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What have you to offer and at what price?

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